Analytic Subject Index

Aerosils 97
Al 78
Alkaline earth metals 307
Amphiphilic molecules 100, 120, 136, 140
Anodisation 7
Antibodies 131
Antiferromagnetic films 150, 156, 163
Antireflecting layers 203, 224
Apodization 231

β-$FeSi_2$ 332
Binary alloys 267
Bromination 127
Brownian motion 299

$CdCl_2$ 100
CdS 197
Cellulose 138
Co/Cu 156
Co/Fe 203
Co/Pd 177
Co/Ru 150
Co/Si 42
Co/Ti 24, 181, 217
Coherence length 1, 55
Concave surfaces 13
Conformal roughness 72
Constrained least squares 16
Corrosion 181
Cryosolids 267
Crystal electric field 7
Crystal truncation rods 7, 63, 66, 195
Cs 66

3d-screening 332
d-layers 253
Damping 1
Density of states 197, 200
Diblock polymers 16, 150
Dielectric constant 9
Diffuse scattering 1, 42, 72, 150, 249
Distorted wave Born approximation 1, 33, 42, 92, 150, 249
DNA 89
Doping elements 332
Double crystals 60
Dynamical theory 16

Electrical resistivity 307, 317
Electrolyte 181
Electron gas theory 337
EPR 329
EuTe 163
Evanescence Bragg reflection 78, 92

Fabry–Perot 235
Facets 1
Fe 70, 169
Fe/Al 224
Fe/Cr 150, 173
Fe/Nb 150
Fe/Si 48
Ferromagnetic films 150, 156
Ferromagnetism 324
$FeSi_2$ 48, 240
Fibonacci words 38
Fractal multilayers 38
Fresnel zone 1, 9, 33, 203

γ-Mn–Ni alloys 317
γ-ray diffraction 133
GaAs 42, 55
GaAs/AlAs 72
GaInAs/GaAs 256
Genetic algorithm 24
Grazing incidence diffraction 48, 60, 92, 131, 240, 243, 246, 249, 256

H (in Ti) 181
Helimagnetic films 163
HgCdTe 7
High pressure 324
Hydrocarbon chains 16

Ice 92
Immunoglobulin 131
Impurities 267
In 246
Inelastic neutron scattering 197, 200
InSb 243
Interdiffusion 27
Interference patterns, nonlinear 361
Iron garnets 290
Isomer shift 332
Isotopic substitution 83, 110, 120

K 66
Kinematical theory 16, 120, 195

Langmuir films 100, 116, 131, 136, 138, 140, 142, 144
Laterally structured surfaces 55
Lattice defects 267
Lattice vibrations 317
Lecithin 146
Li, liquid 307
Lipid films 144

Magnetic layers 150, 156, 163, 169, 173, 177, 203
Magnetic oxides 324
Magnetic structure 290
Maximum entropy 16
Membranes 144
Mesoscopic systems 42, 92
Microemulsion 16
Miscibility of polymers 127
Misfit dislocation 256
Mn/Se(Te) 163
Mössbauer effect 332
Multilayers 72, 136, 142, 144, 203, 213, 220, 231, 235, 249, 256
Multilayers, magnetic 150, 156, 163, 177, 203, 224
Multilayers, polymer 89, 140, 150

Nb 63
Neutron interferometers 235
Neutron polarizers 27
Neutron TOF reflectometers 217
Nevot–Croce 1
Ni 169, 213, 220
Ni^{2+} 329
Ni^{3+} 329
Ni/Co 235
NiC 259
NiC/Ti 213, 220
NMR 290, 299
Nucleic acids 136

Oil 83
Oscillatory exchange coupling 173
Oxides 181, 187

Passivation 181
Pb 78
Phase shift 70
Polyimide films 142
Polymer-surfactants 83

Polymers 83, 89, 116, 127, 138, 140, 150
Pt 187

Quasielastic scattering 97

Reciprocal lattice points 58, 60, 66
Reconstruction 48
Roughness 1, 9, 13, 27, 40, 83, 187, 203

Second sound 361
Self-diffusion, molecular 299
Semiconductors 163, 240, 253
Si 1, 60, 133, 195, 253
Si_3N_4 200
Spin density fluctuations 317
Spin lattice coupling coefficient 329
$SrRuO_3$ 324
$SrTiO_3$ 329
Standing waves 228, 259
Stepped surfaces 55, 63, 72
Stratified surface layers 33
Supermirrors 27, 38, 40, 133, 203, 213, 220, 224
Surface melting 78, 92
Surfactants 83, 100, 110

Ti-B_4C 231
TiO_2 181
Transfer of 3d-electrons 317
Transitions, solid–solid 329

UHV-system for X-ray diffraction 228
Umweganregung 249

Velocity renormalization 337

W 9, 203
Water 83, 97
Whispering gallery 13
Wigner–Mott transition 337

Yoneda 1, 9, 42, 150